

Attorney Docket No.: 266/165 (UMD-0032)
Inventors: Madura, Kiran
Serial No.: 09/918,036
Filing Date: July 30, 2001
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (canceled).

Claim 6 (currently amended): A DNA construct encoding a fusion protein for assessing the proliferative potential of ~~malignant cells~~ a cell comprising:

a) a first nucleic acid sequence encoding a promoter element; and

b) a second nucleic acid sequence encoding a UbL domain having an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, and SEQ ID NO:12, operably linked to a third nucleic acid sequence encoding a reporter ~~gene~~ molecule, expression of said UbL domain and said reporter ~~gene~~ molecule being regulated by said promoter.

Claim 7 (original): A DNA construct as claimed in claim 6, said construct being inserted into a vector.

Claim 8 (canceled).

Claim 9. (currently amended): A DNA construct according to claim 6, wherein said reporter ~~gene~~ molecule is selected from the group of ~~genes~~ molecules consisting of ~~β galactosidase~~ β -

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galactosidase, URA3, luciferase, mammalian chloramphenicol
transacetylase (CAT) ~~gene~~, and green fluorescent protein (GFP)
~~gene~~.

Claim 10 (currently amended): A method for assessing the
proliferative potential of ~~malignant cells~~ a target cell,
comprising:

a) introducing into a target cell a DNA construct encoding a
fusion protein, said fusion protein comprising a UbL domain
operably linked to a reporter molecule; and

b) ~~assessing the half-life of said fusion gene, a short
half-life being indicative of a rapid growing cell and a longer
half-life being indicative of a quiescent cell~~ assessing the
stability of the reporter molecule of the fusion protein, wherein
a decrease in the stability of the reporter molecule in the
target cell, as compared to the reporter molecule of the fusion
protein in a normal quiescent cell, is indicative of said target
cell being an actively growing cell.

Claim 11 (original) A method as claimed in claim 10 wherein
said UbL domain has an amino acid sequence selected from the
group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID
NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID
NO:10, SEQ ID NO:11, and SEQ ID NO:12.

Claim 12 (currently amended): A method as claimed in claim
10, wherein said reporter ~~gene~~ molecule is selected from the
group of ~~genes~~ molecules consisting of ~~β galactosidase~~ β -
galactosidase, URA3, luciferase, mammalian chloramphenicol

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transacetylase (CAT) ~~gene~~, and green fluorescent protein (GFP)
~~gene. consisting of~~

Claims 13-18 (canceled).